DOCUMENT RESUME

ED 226 626 HE 015 559

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TITLE	Cash Management.
INSTITUTION	National Association of Coll. and Univ. Business Officers, Washington, D.C.
PUB DATE	Apr 82
NOTE	6p.; "Portfolio" article.
AVAILABLE FROM	National Association of College and University Business Officers, One Dupont Circle, Suite 510, Washington, DC 20036 (1-9 copies free; 10 or more copies, $.25 a copy).
PUB TYPE	Viewpoints (120) -- Journal Articles (080)
JOURNAL CIT	Business Officer; p19-22 Apr 1982
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Banking; Capital; Educational Finance; *Financial Services; *Higher Education; Inflation (Economics); *Investment; *Money Management; *School Funds; Tuition

ABSTRACT

Elements of an effective management program for colleges and universities are examined. Five basic purposes of an effective program of cash management are identified: developing accurate cash projections, managing cash receipts, controlling cash disbursements, establishing sound banking relationships, and investing funds. It is suggested that all institutions can benefit by investing funds promptly for a maximum period. The responsibility of the cash manager is to create an awareness of cash flow throughout the institution. A critical element in effective cash management is daily attention to bank balances, receipts, and disbursements. Tuition payments are a principal source of cash receipts for most institutions. To improve cash flow, consideration should be given to advancing the due date for payment of bills and/or to increasing deposits required from incoming students. Another approach to improving tuition cash flow is through the use of a lock box. Ways that the cash manager can help to direct major receipts to the institutions' investment bank account are noted, along with ways to convert noncash assets. Effective management of cash disbursements also provides opportunities for increasing invested balances. The cash manager must be prepared to react daily to bank balances--to transfer funds to investment when there is an excess over requirements and to transfer from investment to meet disbursement demands. The bank may be requested to advise the institution of its balance each day. Benefits of pooling cash in a minimal number of accounts are identified. Attention is also directed to: cash flow projections; types of short-term investments; and developments in banking and finance, including rates of inflation. (SW)

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Cash Management

by MARY L. FISCHER
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Cash management can be defined as the maximum use of temporarily available cash for short-term investment. Effective cash management employs idle funds in an investment program whose management costs, including salaries, benefits, and bank fees, do not exceed the anticipated income benefits. Thus, such a program both reduces the amount of funds that are idle by managing cash flow and increases revenues at minimal cost.

An effective program of cash management has five basic purposes:

- Developing accurate cash projections.
- Managing cash receipts.
- Controlling cash disbursements.
- Establishing sound banking relationships.
- Investing funds.

The creation of a cash management program should not depend solely on the incentives provided by high interest rates, since under any circumstances such a program may provide opportunity for financial return with little effort and at nominal cost. While the complexity of management programs varies widely among colleges and universities, all institutions can benefit by investing funds promptly for a maximum period.

An effective program relies largely on institutional commitment. Anyone involved with the receipt or disbursement of the institution's money must understand its value; funds invested for even one day can produce revenues not otherwise available. Some institutions pay bills before they are due; similarly, institutional departments may use an incoming check as an accounting document, which delays deposit. The responsibility of the cash manager is to create an awareness of cash flow throughout the institution. All departmental administrators and anyone with responsibility for receipts or disbursements should be provided a chart that reflects the value of various amounts invested over different time periods. It is important that operations such as auxiliary enterprises, which receive cash on a daily basis, make prompt deposits.

Appropriate staffing for cash management varies with institutional size and complexity and with the thoroughness of the program desired. However, regardless of the institution's size, commitment of a single person on a part-time basis can be effective. At some institutions, one officer has full responsibility for all details of the cash management program. At others, the cash manager acts as a coordinator and works closely with the treasurer and controller on receipts and disbursements, banking relationships, and short-term investments. Frequently, the responsibility for investing funds is separate from that of managing the cash flow, although these functions should be coordinated.

A critical element in effective cash management is daily attention to bank balances, receipts, and disbursements. For many institutions, this leads to improved banking relations (discussed later in this article). If attention is not given daily to these items, the bank, rather than the institution, may use the idle cash. It is the balance of "collected" funds on *bank* records, not the cash account balance on the institution's records, that should be managed.

Cash Receipts

Since an institution's cash resources cannot earn income while remaining in the institution, the cash manager should reduce the time that funds are in transit by (1) minimizing the time that checks are held by the institution for processing, (2) discouraging the use of a check as an accounting device, (3) insisting on daily deposits from cash operations, and (4) lessening the time that cash remains in the business office by providing for more frequent deposits. Procedures that make funds available more quickly can produce greater investment income.

Tuition payments are a principal source of cash receipts for most institutions. To improve cash flow, consideration should be given to advancing the due date for payment of bills and/or to increasing deposits required from incoming students. Preaddressed return envelopes can insure that payments are made to a precise institutional address and are not delayed elsewhere in the institution. As a carryover from days of lower interest rates, many institutions offer a deferred payment plan for a fixed fee that allows the student to pay the

term's bill over several months. The fixed fee can be replaced by an interest charge that recognizes that (1) postponing payment of $4,000 is very different from postponing payment of $500 and (2) the cost varies with the length of time that payment is postponed. Should the volume warrant, and if fees are not paid on a timely basis, the cash manager might also initiate the assessment of an interest or finance charge on receivables. An institution considering a change in due dates for tuition and/or fee payments should consider (1) the effect on its students, (2) the time necessary to bill and record the payment, (3) the assessment of interest on late payments, and (4) the consequences for public relations of the institution.

Another approach to improving tuition cash flow is through the use of a lock box. In this method, an institution directs all payments to a post office box from which the receipts are retrieved frequently (often several times a day) by either the institution or a bank. If the bank acts for the institution, it processes the funds into a depository account, and arranges for their transfer either to the institution's bank account or into investments, as requested. An additional benefit may be the removal of a large number of transactions from the business office by the bank, which may provide data in machine-readable form to the institution's accounting system. While use of this system is widespread, some institutions may not be allowed to have a bank act for them in this manner. Also, banks have substantial charges for lock-box processing and that cost should be weighed against the cost of institutional processing.

The use of lock-box tuition payments may be particularly helpful for small rural institutions, which may use the services of metropolitan banks to enhance their cash receipt processing and expedite investments. One example of use of a lock box is a university in a rural environment, which has a lock-box arrangement with a bank in the state capital to which are directed all state appropriations. The funds are wired daily from that bank to the institution's investment bank. Use of a bank in a major city makes it possible to reduce processing time as compared to the time necessary for receiving payment at the institution and sending it to a local bank for transfer to investment. When economically feasible, the transfer of state appropriations by messenger should be considered.

Whenever a cash manager finds checks that have been held for some time, he or she should telephone the department concerned to discover the reason. At the least, such calls are a reminder of the time value of money and should lead to improved performance. The cash manager should work with department heads who are likely to receive large checks, in order to arrange that major receipts be quickly directed to the institution's investment bank account. Similar arrangements may be made for processing government funds on letters of credit. It is possible to make arrangements for the bank to act as the agent for an institution. This is particularly important when a college or university is using an investment bank in a different city. Such a bank can be designated as the recipient of funds on the letter of credit, saving several days in mail time. Since letters of credit are for reimbursement of expenditures, the institution may not benefit, as earnings on federal funds belong to the government. However, prompt processing of letters of credit eliminates a need for advance of the institution's own funds to cover federal expenditures pending receipt of federal reimbursement.

The cash manager may also assist financial managers in converting noncash assets, such as accounts receivable, into cash, or encouraging them not to hold unwarranted inventories that decrease available cash. The cash manager may also provide for more frequent deposits by balancing cash receipts more often. A common practice is to balance cash receipts at the end of a work day, but this means that all funds receipted that day are not available for investment until the following day. The cash manager should encourage the deposit of receipts both in the morning and in the afternoon to (1) meet any specific time set by the bank for deposited funds to be available for investment and (2) reduce the disadvantages to the institution of holding cash overnight. Large checks may be handled separately rather than being held for regular deposit. There should be special deposit arrangements for periods of unusually high cash receipts, such as registration days. On such occasions, multiple deposits each day can enhance investment opportunities.

Cash Disbursements

While close attention to cash receipts is critical to making a maximum amount of funds available for investment, effective management of cash disbursements also provides opportunities for increasing invested balances. Some major nonprofit organizations operate disbursements on a cash basis; that is, the only way that an expenditure can be recorded is through the writing of a check. Institutions operating in this fashion should seriously consider the development of an accounts payable system that permits recording of the expenditure in the accounting system but allows appropriate scheduling of payments.

Institutions should take advantage of invoices that offer discount terms. Even in times of high interest rates, normal trade discounts are substantially above any interest rate that could be earned on the investment of a similar amount of funds. Unless there are specific agreements to the contrary, any bills that do not provide a discount should be treated as being payable within 30 days. While it is economical to batch bills to a single vendor so they can be paid in a single check, the cash manager should be sure that the accounts payable section is sensitive to the due dates of various invoices so that an early date on one does not trigger the payment of all. Arrangements may be made with the bank to cover large disbursements with wire transfers on those that must be paid on a specified date such as debt service and pension transfers. In some cases, a check system may be more beneficial to the investment program by allowing the institution to invest the funds while the check clears the bank.

Care should be taken to prevent the institution from becoming so concerned with deferment that it neglects the advantages of special disbursement methods instituted for cost reduction. Specifically, the use of "check with order" or "purchase order draft," a system that leads to substantial reduction in work load in the purchasing department, should not be discarded because of its negative effect on cash flow. Since it is normal practice to limit the dollar value of such orders, the net effect on cash flow may not be material.

Some institutions have improved their cash flow through their banking arrangements for paying payroll checks issued. Instead of transferring the entire amount to an interest bank account on payday, the institution may arrange to transfer funds into the payroll account as the checks are presented. An alternative method is for the institution to forecast when

checks will be presented to the bank for payment and transfer funds to the payroll account based on that forecast. It may be difficult to project how checks issued in payment of general expenditures will be received by the bank, but recipients of paychecks tend to follow readily identifiable patterns that make such projections possible.

Bank Relationships

The establishment of a sound working relationship with the institution's principal bank is essential for a college or university if the institution is to marshal its cash resources for maximum benefit. The cash manager must be prepared to react daily to bank balances—to transfer funds to investment when there is an excess over requirements and to transfer from investment to meet disbursement demands. It may be necessary for the cash manager to develop memorandum records that reflect the daily cash position if the institution's accounting system cannot provide this information fast enough for effective decision making. The bank may be requested to advise the institution of its balance each day in sufficient time for the cash manager to take action. The various money markets in which the institution would want to invest funds close at set times each day; failure to take action prior to these times may mean that the institution will have substantial sums uninvested overnight. It is also important to recognize the difference between the bank's "book" balance and its "collected" balance. Checks deposited may require up to two days to clear through the federal reserve system. Until they do, the funds are not available for investment and are considered "uncollected."

Normally, an institution pays for a bank's services by fees or by compensating balances. When charging fees, a bank establishes the cost of each type of transaction and bills on a monthly basis. As an alternative, the institution may provide the bank with sufficient balances on which the bank accrues earnings to compensate for the value of services received. The latter method is preferred by banks, since it allows them to profit by lending or investing funds on deposit. In determining an appropriate level of compensating balance, the bank considers services provided, reserves required by law, and the adjustment required to bring the recorded balance to the collected balance. By dividing the total value of services provided by the assumed rate of return, the bank determines the balance that the institution must maintain. If an institution chooses the compensating balance method, there should be a clear understanding as to whether that figure is the minimum balance required or if it is to be the average maintained through the month. The calculation of a proper balance should include all accounts with the bank, not just the principal account.

Regardless of the payment method selected, a bank's estimate of the cost of providing services is essential. The cash manager should negotiate this rather than simply accept the bank's standard charges. The cash manager should require the bank to furnish a monthly statement reflecting the number of transactions and the total cost and, in the case of a compensating balance, showing how the figure was derived. An example of this type of statement is shown in Exhibit 1.

Cost must be a consideration in selecting a bank but least cost is not necessarily best cost. Banks vary widely in both quality and quantity of services provided, and these should be evaluated carefully. A high quality of services may be well worth the cost.

An institution's cash resources may be spread among a large number of bank accounts, which creates difficulties for a cash manager. Fund accounting does not require a separate bank account for each type of fund, although some funding agencies may. While there may be political reasons for maintaining balances in different banks, the fewer accounts the cash manager needs to monitor, the greater the investment revenues to be derived and the less effort involved. Pooling of cash in a minimal number of accounts carries these benefits: (1) minimizing idle balances, (2) facilitating investment, since the investment manager has larger dollar volumes with which to work, (3) providing greater opportunity for diversity of investment, (4) aiding the investment manager in the selection and the timing of securities to be sold, and (5) simplifying the determination of compensating balances.

A cash manager may facilitate controlling bank balances by using separate accounts for receipts and disbursements. The bank can be directed to transfer sufficient funds from the receipts account or from investment to cover checks presented against the disbursing account. This will enable the institution to take maximum advantage of float on outstanding checks. This is particularly applicable to the payroll account.

Exhibit 1: Account Analysis Statement
Determination of Minimum Balances and Investable Funds

	Quantity	Unit Price	Total
Monthly account charges:			
Checks paid during month	1,000	$ .08	$ 80
Checks deposited during month	1,800	.05	90
Number of deposits per month	40	.10	4
Number of wire transfers per month	4	5.00	20
Monthly safekeeping fees			25
Total activity charge			$ 219
Average balance required to support services:			
Total activity charge			$ 219
Months in year			12
Annual activity charge			$ 2,628
Required balance to earn $2,628 at 5%			$ 52,560
Divided by (1.00–0.15), which allows for the 15% reserve requirement, to obtain average balances required to support services			$ 61,835
Average balance on account at bank			$150,000
Less average uncollected funds (bank float)			(60,000)
Less average balances required to support service			(61,835)
Excess bank balance			$ 28,165

Cash Flow Projections

Planning and controlling cash flow, or managing money, is an important task of the cash manager because it affects the institution's ability to pay obligations and salaries and wages, acquire assets, and meet unexpected needs.

To plan, managers need information about historic cash flows for the period. An adequate working capital position does not, in and of itself, imply an adequate cash position, since working capital may consist of accounts receivable, inventories, and other noncash items. Also, an adequate cash position does not imply an acceptable working capital position, as large current liabilities may require more cash than is available.

A cash flow statement provides necessary information to plan effectively for meeting short- and intermediate-range cash needs. An analysis of cash flow will show whether the pattern of cash inflow from operations will enable an institution to meet its payment schedules properly or whether it must arrange for short-term credit.

The cash flow statement summarizes by major categories, or items, cash receipts and disbursements leading to net change in cash in a given period. It is comparatively easy in a computer-based system to code input data on receipts and disbursements and to program the computer to prepare a cash flow statement. If such a system is not in operation, the necessary information can be obtained in an analysis similar to that needed to prepare a statement of changes in financial position.

The forecasting of cash is critical in developing investment plans. Cash forecasting can be either a simple procedure or a sophisticated computer operation. Cash flow analysis is historical in nature and projections should be based on estimates or pro forma statements. Projection of cash flow is an important part of cash budgeting, and integral to the total budgeting process. Estimates of future cash requirements should take into consideration operating requirements and any expansion plans outlined in the budget.

When the demands for cash during a given period are expected to exceed available cash, the shortfall must be met by such measures as the conversion of a short-term security or through short-term credit from a bank. During periods when cash inflow is expected to exceed cash outflow, a cash management plan should provide for reduction of the short-term debt or increase in temporary investments or both. The greater the fluctuations of cash flow, the greater the need for careful planning of cash needs and cash investments.

Investing

The increased cash balances available for investment, through improved cash flow, should be invested for maximum earned income consistent with acceptable risk levels. The amount of cash available and the length of time it may be held in investments are principal factors in determining such investment.

Short-term investment instruments available to the cash manager vary widely. They may be as simple as savings accounts, certificates of deposit, or treasury bills, or may include commercial paper, banker's acceptances, money market funds, or repurchase agreements. In selecting the appropriate vehicle, the cash manager may seek advice from banks or investment houses, or develop his or her own expertise. An institution may also use investment services such as The Common Fund, which offers a short-term pool.

New Dimensions

The future of cash management seems inexorably linked to future rates of inflation, rapid changes occurring in technology, and structural shifts in financial institutions and markets.

High inflation rates have threatened to devalue cash that is idle or unaccounted for, and may place further premiums on tight cash controls and encourage further development of complicated cash forecasting and management systems and models, along with increasing use of electronic funds transfer system (EFTS).

Technological changes in the banking industry may reduce gains that have resulted from institutional efforts to speed cash collections and to slow down or better control cash outflows. Use of EFTS through a nationwide computer network could reduce the float to a matter of hours or even minutes.

Structural changes in financial institutions and markets, encouraged by deregulation and other factors, may alter the manner in which business is conducted through these intermediaries. For example, the trend toward unit pricing of bank services may place increasing pressure on the use of compensating balances. Under unit pricing, the bank states a price for the service and the institution pays that rate for services actually used.

Increasing integration of varied financial services into fewer sources (such as insurance companies in the brokerage business and mergers of banks and thrift institutions) and redefined geographical boundaries (interstate and international banking) may cause the financial system to more closely approach the "one stop" or "financial department store" concept. Better service at more competitive prices may well emerge from these trends.

To protect their cash reserves against inflation, institutions may begin to invest funds aggressively, seeking higher yields. Idle cash balances and emphasis on treasury bills will have to compete for attention with commercial paper, and perhaps various foreign obligations (Euromarket, Japanese C.D.s, etc.) in the search for higher returns. Moreover, increasing attention may be given to using futures markets in the management of risk and return in the marketable securities portfolio. ♦

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Newsmagazine of the National Association of College and University Business Officers

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Business Officer (ISSN 0147-877X) is published monthly by NACUBO, One Dupont Circle, Suite 510, Washington, DC 20036, telephone 202-861-2500. Second-class postage paid at Washington, DC. Of annual membership dues, $30 is for a subscription to *Business Officer*.

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